

EXHIBIT 4

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**UNITED STATES DISTRICT COURT
FOR THE NORTHERN DISTRICT OF OHIO
EASTERN DIVISION**

**IN RE NATIONAL PRESCRIPTION
OPIATE LITIGATION**

This document relates to:

Case No. 17-OP-45004

THE COUNTY OF CUYAHOGA, OHIO et
al.

vs.

PURDUE PHARMA L.P. et al.

and

Case No. 18-OP-45090

THE COUNTY OF SUMMIT, OHIO et al.

vs.

PURDUE PHARMA L.P. et al.

MDL No. 2804

Case No. 17-md-2804

**EXPERT REPORT OF
MATTHEW G. BIALECKI, CPA, CFF, CGMA**

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My total maximum past opioid costs for Cuyahoga County, not including Children and Family Services, are \$9,575,220.⁴⁰² Of these total costs, I determined \$40,676 related to prescription opioids.^{403,404}

My total maximum past opioid costs for Summit County, not including Children Services, are \$10,098,433.⁴⁰⁵ Of these total costs, I determined \$166,667 related to prescription opioids.⁴⁰⁶

VI. INSUFFICIENCIES OF THE PLAINTIFFS' EXPERTS' METHODOLOGIES AND OPINIONS

I have also been asked to review the reports filed by McGuire and Cutler and to comment on their calculations of damages. It is my opinion that McGuire's damages opinions are flawed and should be rejected.

Overview of McGuire's Calculation of Financial Damages

McGuire theorizes that the appropriate framework for calculating "damages"⁴⁰⁷ is based on the principle of opportunity cost.⁴⁰⁸ McGuire readily admits that a change in demand for government services does not necessarily result in increased costs or additional spending.⁴⁰⁹

⁴⁰² At this time I have not analyzed Children and Family Services. Pursuant to the Court's recent rulings, I will supplement my report to include an analysis of Children and Family Services upon receipt of the underlying case files from Plaintiffs. See Order re Objections to Discovery Ruling No. 17 from J. Polster dated April 10, 2019 (Dkt. No. 1535) and Order Granting an Extension to File a Single, Supplemental Report on Children's Services' Damages from SM Cohen dated May 7, 2019.

⁴⁰³ Due to the unavailability of certain Cuyahoga County financial records for 2018, my calculation of past opioid costs for Cuyahoga County is limited, in part, to the period 2006 to 2017.

⁴⁰⁴ Appendix 4 – Cuyahoga County Direct Costs.

⁴⁰⁵ At this time I have not analyzed Children Services. Pursuant to the Court's recent rulings, I will supplement my report to include an analysis of Children Services upon receipt of the underlying case files from Plaintiffs. See Order re Objections to Discovery Ruling No. 17 from J. Polster dated April 10, 2019 (Dkt. No. 1535) and Order Granting an Extension to File a Single, Supplemental Report on Children's Services' Damages from SM Cohen dated May 7, 2019.

⁴⁰⁶ See Appendix 5 – Summit County Direct Costs.

⁴⁰⁷ McGuire characterizes his calculations as damages (for example, see McGuire Report, para. 11), and he states that he has been instructed by counsel to refer to his calculations as damages (see deposition of Thomas McGuire dated April 30, 2019, p. 590:14-19).

⁴⁰⁸ See McGuire Report, para. 26-27 and footnote 26.

⁴⁰⁹ See McGuire Report, para. 25.

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Rather, he theorizes that counties suffered opportunity cost damages as a result of responding to opioid-related issues. He posits that if the county spent funds on opioid-related issues, including for internal compensation costs, then the county was unable to spend funds on other issues.⁴¹⁰ McGuire frames the counties' inability to spend funds on other issues as "lost opportunities" and, therefore, treats all funds spent by the counties on opioid-related issues as damages even if the county's financial condition remained unchanged.

McGuire quantifies damages in the following manner:^{411,412}

Damages = (1) Total Costs Incurred in Bellwether Divisions Affected by Opioid Crisis
 × (2) Share of Total Costs in Relevant Divisions That Address Harms
 × (3) Share of Harm Attributable to Defendants' Misconduct

It should be noted that (3) above is calculated by Cutler according to the following formula:⁴¹³

(3) Share of Harms Attributable to Defendants' Misconduct
 = (4) Share of Harms Attributable to Opioids ("Opioid-Related %")
 × (5) Share of Opioid Harms Attributable to Opioid Shipments
 × (6) Share of Opioid Shipments Due to Defendants' Misconduct

An example of how the McGuire and Cutler reports are linked is shown below:^{414, 415}

⁴¹⁰ See McGuire Report, para. 26.

⁴¹¹ See McGuire Report, para. 16 and 72.

⁴¹² Note that McGuire and Cutler do not assign numbers to calculation steps within their individual reports (i.e., numbers 1-6 above). I have included numbers here for illustrative purposes.

⁴¹³ See McGuire Report, footnote 15 and Cutler Report, para. 23.

⁴¹⁴ McGuire calculations are based on the example presented in Table IV.11 of the McGuire Report.

⁴¹⁵ Cutler percentages sourced from Table III.4 and Table III.13 of the Cutler Report.

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Example: Damages to Cuyahoga County Sheriff's Department			2017
McGuire	(1) Total Costs Incurred by Cuyahoga Sheriff		<i>(\$ in millions)</i>
	Total Compensation Costs	[a]	\$32.9
	Affected Non-Compensation Costs	[b]	\$0.8
	(2) Share of Costs in Relevant Divisions that Address Harms		
	Overhead Adjustment	[c]	93.2%
	Crime-Focused Percentage	[d]	68.7%
	Offset to Affected Costs	[e]	\$0.0
	(3) Share of Harms Attributable to Defendants' Misconduct <i>(taken from Cutler Report)</i>		
Cutler		[f]	5.2%
	Damages to Cuyahoga Sheriff	$([a]*[c]*[d]+[b]-[e])*[f]$	\$1.1
	(4) Share of Harm Attributable to Opioids ("Opioid-Related %")	[g]	11.0%
	(5/6) Share of Harm (based on Regression)	[h]	47.7%
	(3) Share of Harms Attributable to Defendants' Misconduct	$[f]=[g]*[h]$	5.2%

McGuire first identifies 19 “affected divisions” in the Bellwether counties that may have incurred costs in responding to opioid abuse.⁴¹⁶ His work is then primarily focused on determining what he refers to as the “affected costs,” which are determined by steps (1) and (2) in the first formula above.⁴¹⁷ These are the costs that McGuire claims are “variable” and potentially affected by opioid abuse related issues. Again, when he identifies these costs as “affected” or “variable,” he does not mean that they actually increased or decreased because of opioid abuse, but rather that they were “diverted.”⁴¹⁸ In other words, he does not demonstrate a change in expenses or financial condition “but for” Plaintiffs’ allegations. The total “affected” costs incurred in “affected divisions” are then multiplied by the “[s]hare of total costs in relevant divisions that address harms.”⁴¹⁹ This step attempts to refine the total costs in the “affected divisions” by removing overhead and other costs in an attempt to identify the portion of costs that might actually have been affected. These “affected costs” are then multiplied by item (3) in

⁴¹⁶ See McGuire Report, Table IV.1.

⁴¹⁷ See McGuire Report, Section IV (“Identifying Affected Costs Within Impacted Government Divisions”).

⁴¹⁸ See McGuire Report, Section II.B.3 (“The Value of Diverted Resources Understates Opioid-Related Costs Faced by Municipalities”) and para. 26-27.

⁴¹⁹ See McGuire Report, para. 16 and 72.

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the formula above, the “Share of Harm Attributable to Defendants’ Misconduct.” The formula for this element is referenced above and will be further discussed later in this report.

Further, while McGuire struggled to recall the specifics of what he did, how the numbers ended up in his report, who performed the work, who he talked to, or what county employees were consulted, the one thing that is clear regarding his work is that all he has done is identify the costs that may have been affected.⁴²⁰ He relies entirely and without analysis or vetting on Cutler (and Rosenthal) for the rest of the analysis.⁴²¹ Outside of determining the starting point for costs, he is merely a calculator for the rest of the exercise. Because he is so dependent on Cutler for the substantial portions of the analysis, I will address the work of both in subsequent sections.⁴²²

As previously stated, it is my opinion that McGuire’s damages opinions are flawed and should be rejected. The most egregious deficiencies fit into the following categories:

1. McGuire’s methodology is illogical, relies on unfounded and untested theories, misapplies the concept of opportunity cost, and relies on financial terms and concepts in a manner that is not commonly accepted in the profession.
2. McGuire’s determination of “affected costs” is speculative, unreliable, and deficient.

⁴²⁰ See deposition of Thomas McGuire dated April 23, 2019.

⁴²¹ See deposition of Thomas McGuire dated April 23, 2019, pp. 140:23-142:24, pp. 144:16-146:15, and p. 205:14-19.

⁴²² In addition to the damages calculations addressed in this report, McGuire also includes additional calculations in the appendices to his report that are labeled “Damages from Distributors’ Misconduct” and “Damages from All Shipments.” He claims that he relies on inputs from Cutler for these calculations. He does not present these as damages, and when asked about them at his deposition, he did not seem to know their intended purpose. He mistakenly guesses that some were for his Public Nuisance report. Cutler states that he was not involved in determining or assessing the underlying data that was used to calculate the inputs that were provided to McGuire. Cutler claims that this data was simply given to him by counsel, and that it was estimated by McCann and Rosenthal. However, I have not seen the underlying data sets from McCann, and understand that counsel for Defendants has not seen them either. As the relevance and validity of the underlying figures from McCann and Rosenthal are beyond the scope of my report and McGuire does not present his calculations relying on these figures as damages, I am not addressing them further in this report. See deposition of Thomas McGuire dated April 30, 2019, pp. 594:24-606:16 and deposition of David Cutler dated April 27, 2019, pp. 594:11-595:3 and 634:8-637:11.

3. McGuire's conclusions are entirely dependent on the work of Cutler, who bases his work on inappropriate, deficient, and insufficient data, fails to properly analyze and vet his underlying data sources, and ignores significant amounts of relevant data.

A. Methodological and Foundation Errors

As previously described, McGuire utilizes opportunity cost as his methodology for calculating financial damages. To understand the flaws in McGuire's methodology, it is helpful to begin with a definition of opportunity cost:

"Opportunity costs represent the benefits foregone because one course of action is chosen over another"⁴²³... and have been described as expressing "the basic relationship between scarcity and choice."⁴²⁴

"A benefit, profit, or value of something that must be given up to acquire or achieve something else."⁴²⁵

First, opportunity cost, as defined above and utilized by McGuire, cannot be used to determine financial damages suffered by the Cuyahoga County and Summit County governments. Rather, to the extent damages have been suffered at all, the opportunity costs identified by McGuire only represent ostensible damages and harm to the individual citizens in those counties. A key concept in the above definitions is that of the "benefit" or "value" that is lost. Not only is it crucial to determine that value has been lost, but also to identify who has lost that value. To the extent McGuire has identified value lost by an entity other than the Plaintiffs, his opinions must be rejected.

An example of opportunity cost and "diversion" of resources cited by McGuire illustrates this deficiency. If the Summit County ADM division treats an opioid abuse patient instead of treating an alcohol patient, neither the service provider nor the County is deprived of any benefit. The county spends the same amount of time and same amount of resources providing treatment

⁴²³ See Barfield, Raiborn, and Kinney. Cost Accounting Traditions and Innovations. 2nd Edition, 1994, p. 605.

⁴²⁴ See James M. Buchanan (2008). "Opportunity Cost." The New Palgrave Dictionary of Economics Online (Second ed.).

⁴²⁵ See <http://www.businessdictionary.com/definition/opportunity-cost.html>.

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as it otherwise would. The entity that lost the benefit and was therefore harmed or damaged is the alcohol patient. By calculating damages in this fashion, McGuire is substituting theoretical damages to individual citizens for damages to the county.

It is widely accepted that measuring damages calls for reconstructing the financial results that “would-have-been” achieved had the alleged improper conduct not occurred--in other words, determine what would have been, “but for” the alleged improper conduct. Then, the would-have-been results are compared to the actual results so that damages stemming from the alleged improper conduct can be identified and measured.⁴²⁶ Because McGuire realizes that this widely accepted approach would result in significantly lower damages, he conflates damages to citizens with damages to the county.

Further examples from the McGuire Report illustrate his recurring conflation of individual and county damages. If, as McGuire posits, opioid abuse-related activities occupy 20% of Children and Family Services staff time, resulting in less time for other activities and a decrease in quality of service, the provider of service is unaffected. It is those who received the service that may suffer harm or incur damages. Similarly, if police spend less time on patrolling and traffic enforcement because of time spent responding to opioid abuse-related calls, the police department is unaffected. The police officers spend the same amount of time and the municipality spends the same amount of resources as it otherwise would. The citizens who then don’t benefit from the patrolling and traffic enforcement are potentially harmed, but the police department is not. It is likely that the Court recognized this fact when it gave guidance that damages could be measured by incremental increased costs above the norm, not merely from substituted costs or the ordinary provision of service.^{427,428}

⁴²⁶ See Weil, R., Lentz, D. and Evans, E. *Litigation Services Handbook*. 6th Edition, 2017, Section 4.4 “Damages Theory.”

⁴²⁷ See Opinion and Order dated December 19, 2018 in the matter *The County of Summit, Ohio et al. vs. Purdue Pharma L.P. et al.*

⁴²⁸ McGuire also submitted a separate report “Regarding Public Nuisance.” That report also purports to calculate costs borne by citizens and does not attempt to calculate costs borne by the counties themselves (see deposition of Thomas McGuire dated April 30, 2019, pp. 669:8-670:5 and McGuire Report Regarding Public Nuisance, para. 13). Moreover, that report does not attempt to link these costs to Defendants’ misconduct (see McGuire Report Regarding Public Nuisance, para. 42 and footnote 57).

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A second major deficiency in McGuire's methodology is his assumption that governments are rational, profit maximizing entities that behave like consumers or businesses.⁴²⁹ McGuire states that local governments face a constrained optimization problem: how can they optimally allocate their limited resources to "maximize their objectives."⁴³⁰ He then claims that Summit and Cuyahoga Counties utilize standard private sector cost / benefit analyses when they allocate resources.⁴³¹ He bases this assertion on a handful of quotes plucked from a few textbooks.⁴³² However, a further review of those texts reveal that this is not "well accepted" even in the texts McGuire claims as his primary sources.

As discussed below, politicians and bureaucrats are guided by objectives other than profit maximization, which result in governmental inefficiencies that break the cost / benefit link required by private sector decision makers. As a result, the texts McGuire cites, which he claims support his economic underpinnings, actually refute his economic underpinnings.

For example, John Mikesell, in *Fiscal Administration* (one of McGuire's cited texts) wrote:

Public finance is not the same as business finance, although the two are related and use many of the same tools. One difference is in ultimate objectives. Financial management in business seeks to increase the value of the firm to its owners by judicious allocation and control of its resources. Public financial management uses similar analytic, technical, and managerial tools to allocate and control finances, but governments differ from private businesses in terms of resource constraints, ownership and objectives. Four important differences exist: governments may tax to enlarge their resources; "ownership" of the government is not clear because many stakeholders – including at least taxpayers, those benefiting from particular government services, and those providing government services – share a legitimate interest in government decisions; the value of government services is neither easy to quantify nor reflected in a single measure (like the sales or profits of a business enterprise); and governments are dealing with the public trust and reputations of all the citizenry... The fundamental idea that the

⁴²⁹ See McGuire Report, para. 22 and footnote 21.

⁴³⁰ See McGuire Report, para. 22.

⁴³¹ See McGuire Report, para. 22.

⁴³² See McGuire Report, footnotes 21-23.

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provider of a valued product can capture a portion of that value – a link between creating value and receiving revenue from that value – is broken for government operations. ***Government finance, for this reason, is fundamentally different from business finance.***⁴³³ [emphasis added]

Mr. Mikesell goes on to conclude that:

Logically, budget allocation is simple: allocate funds among government programs until an additional dollar moved to any program yields an additional return to society equal to the return lost from the program from which that dollar was taken. [i.e. marginal cost analyses] That is the public sector equivalent of the familiar resource allocation rule for profitability in business operations. But the private decision maker maximizes a clear and measurable objective – profit – and measuring profitable return from several lines of operation is feasible because the standard is clearly calibrated, uniform, and measured with a common denominator (profit). Public section operations usually (1) have multiple objectives (e.g., subsidized school lunches both feed children and support the income of farmers), (2) have conflicting objectives (e.g., the reservoir needs to be nearly empty to provide flood control and to be nearly full to allow water skiing), and (3) have no standard measure or common yardstick to compare the return from various programs (e.g., the gains from cleaner rivers are not measured in the same units as are reduced traffic fatalities). Furthermore, the beneficiaries of the various programs often are not the same people, so choices among programs cause there to be distributional winners and losers, in violation of the Pareto criterion. In addition, taxpayers paying for the programs may well not be the people benefiting from the public services being provided, complicating the decision-making process even more, as does the fact that program beneficiaries are not evenly distributed among the electoral districts of the lawmakers deciding what programs will receive appropriations. Hence, the simple public program rule, so easy to define, may only be a glimmer in the foggy politics of budget decisions. Lawmakers working in the public interest face tough choices, well beyond the complexities a business executive will confront.⁴³⁴

⁴³³ See Mikesell, John L. Fiscal Administration 10th Edition, 2018, pp. 2-3. (footnote omitted).

⁴³⁴ See Mikesell, John L. Fiscal Administration 10th Edition, 2018, p. 259 (footnote omitted).

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Because these multiple and mixed objectives cannot be weighed scientifically and because achievement of objectives cannot be easily measured across programs, the budget process is political, involving both pure bargaining or political strategies and scientific analysis.⁴³⁵

And legislators at all levels of government seek to bring government business to their own constituencies, often with minimal regard to whether that is the most efficient way of delivering services to the public as a whole.⁴³⁶

Additional quotes from McGuire's cited texts that undermine his assumptions include:

...a bureaucrat's salary is typically unrelated to efficiency.... The goal of the bureaucrat is, therefore, to maximize the size of the agency he controls....⁴³⁷

[Governments] often ignore or fudge orders to perform cost-benefit analyses.... When cost-benefit analyses are done, the quality is often poor.... A further problem is that the whole exercise can be subverted when inherently difficult-to-measure considerations are required to be brought into play.⁴³⁸

[In moving money between activities,] one should never underestimate the capacity of politicians to do the wrong thing.⁴³⁹

...irrational choices will be made [by governments], resources will be misallocated, and scams will be implemented. Sound governance processes and institutions can improve the odds of reasonable choices, but that's all.⁴⁴⁰

⁴³⁵ See Mikesell, John L. *Fiscal Administration* 10th Edition, 2018, p. 56.

⁴³⁶ See Mikesell, John L. *Fiscal Administration* 10th Edition, 2018, p. 57.

⁴³⁷ See Gruber, Jonathan. *Public Finance and Public Policy*, 5th Edition, 2016, p. 265.

⁴³⁸ See Rosen, Harvey S. and Gayer, Ted. *Public Finance*, 10th Edition, 2014, p. 169.

⁴³⁹ See Mikesell, John L. *Fiscal Administration* 10th Edition, 2018, p. 45.

⁴⁴⁰ See Mikesell, John L. *Fiscal Administration* 10th Edition, 2018, p. 34.

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Third, another important element in the concept of opportunity cost is that of constraint or scarcity. McGuire himself notes that this is a foundational element and refers to it when he discusses diversion of services.⁴⁴¹ He explains that because counties are constrained, they must divert services rather than incur incremental costs, and so he uses opportunity costs to measure these diversions.⁴⁴² By his reasoning, this implies that every time the county spends an hour or resources to respond to opioid addiction, there is a corresponding decrease in time or resources spent on other drugs or issues. In other words, spending time or resources on opioid abuse related issues prevents the county from performing other services.

Although this is a fundamental premise in McGuire's damages theory, he does nothing to confirm that this actually occurred in Cuyahoga or Summit Counties. He is unable to identify a single service that was not performed due to opioids. He went to great lengths in his deposition to explain that it doesn't matter what service or expense was foregone,⁴⁴³ but more importantly he never demonstrates whether any service or expense was foregone.

In fact, the Plaintiffs' own financial data, which McGuire ignored, suggests that the affected divisions did not divert services to address opioid issues. Both Cuyahoga and Summit Counties significantly underspent their budgets in the affected divisions identified by McGuire. A review of the Cuyahoga County CAFRs reveals that between 2012 and 2017, actual expenditures in the affected divisions totaled \$101 million less than had been budgeted and approved.⁴⁴⁴ In Summit County, the affected divisions spent \$37 million less between 2012 and 2017 than had been budgeted.⁴⁴⁵ Furthermore, several of the divisions have maintained enormous fund balances far in excess of what is needed from an operational perspective. For example, the Summit County ADM division carried a fund balance (or cash balance) of more than \$45 million at the end of 2017.⁴⁴⁶ This amount represents nearly an entire year's worth of expenditures for the department. Summit County ADM operated on a fund balance of less than

⁴⁴¹ See McGuire Report, para. 22.

⁴⁴² See McGuire Report, para. 23-24.

⁴⁴³ See deposition of Thomas McGuire dated April 30, 2019, pp. 517:12-521:1.

⁴⁴⁴ See Appendix 6 – Comparison Between Budgeted and Actual Expenditures, Cuyahoga County.

⁴⁴⁵ See Appendix 7 – Comparison Between Budgeted and Actual Expenditures, Summit County.

⁴⁴⁶ See SUMMIT_001103655.

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\$18 million in 2009 when expenditures were significantly higher than in 2017, but the balance has steadily increased year after year due to the division spending less than the revenue it has received.⁴⁴⁷ Summit County Children Services has carried a fund balance in excess of \$30 million for the vast majority of the alleged damage period, representing as much as 75% of annual expenditures.⁴⁴⁸

The foregoing suggests that the counties did not experience constraint-driven diversion of resources. Ample resources existed in several of the divisions to provide significant levels of additional services. To the extent the counties chose not to provide additional services, it was not due to constraints caused by addressing opioid abuse related issues.

Fourth, McGuire's calculations are inconsistent with the manner in which damages have been described in this case. The December 19, 2018 Opinion and Order issued in this case states the following:⁴⁴⁹

The Court thus concludes that while Cities and Counties cannot recover ordinary costs of services provided in their capacity as a sovereign, Cities and Counties should be able to recover costs greatly in excess of the norm....

Certainly, some of Plaintiffs' alleged costs are costs associated with the ordinary provision of services to their constituents in their capacity as sovereigns. . . . These costs cannot be recovered unless Plaintiffs can prove they go beyond the ordinary provision of those services.

Clearly, McGuire's methodology does not identify costs greatly in excess of the norm. He does not attempt to establish what a normal level of cost would have been "but for" the allegations and does not attempt to identify or calculate incremental increases in cost above that

⁴⁴⁷ See SUMMIT_001103655.

⁴⁴⁸ See SUMMIT_002057610, SUMMIT_002057852, and SUMMIT_002058218.

⁴⁴⁹ See Opinion and Order dated December 19, 2018 (pp. 19-20) in the matter The County of Summit, Ohio et al. vs. Purdue Pharma L.P. et al.

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norm. Instead, he is merely calculating what portion of the “ordinary provision” of services was spent on opioid-related issues.

Finally, when McGuire chooses the affected costs that he then multiplies by the factors that Cutler determines, he bases his selection on a determination of “variable” and “fixed” costs.⁴⁵⁰ These are standard accounting terms. However, his application of these terms is inconsistent with any definition of variable and fixed costs in standard accounting literature and is inconsistent with how these terms are used in the profession.

Variable costs are costs that vary in total in direct proportion to changes in activity. Cost of materials and hourly labor are typical examples of variable costs. Fixed costs are costs that are not immediately affected by changes in activity. Salaries and rent are common examples of fixed costs.⁴⁵¹ However, McGuire’s identification of variable costs is entirely inconsistent with these common definitions and the way they are applied in practice. In fact, 70% of his total “variable costs” are salaries, which are almost universally regarded as fixed expenses.^{452, 453} McGuire also describes the costs as “affected costs” despite the fact that they remain the same regardless of the services rendered. McGuire’s manufactured definition of variable cost is necessary to prop up his damages model, which does not identify increases in costs above the norm but rather simply identifies static costs that are part of the ordinary provision of service and unchanged by varying service demands.

B. Unreliable Determination of “Affected Cost”

The second category of fatal error relates to McGuire’s calculation of “affected costs.” As previously discussed, he quantifies opportunity costs related to opioid abuse in the following manner. The “affected costs” are calculated in steps (1) and (2) below:

⁴⁵⁰ See McGuire Report, para. 58-61.

⁴⁵¹ See Horngren, Sundem, and Stratton. *Introduction to Management Accounting*. 12th Edition, 2002, pp.43-47; Horngren, Harrison, and Robinson. *Principles of Financial & Management Accounting*. 1994, pp. 810-811; Barfield, Raiborn, and Kinney. *Cost Accounting Traditions and Innovations*. 2nd Edition, 1994, pp. 37-40.

⁴⁵² See Horngren, Sundem, and Stratton. *Introduction to Management Accounting*. 12th Edition, 2002, pp.43-47; Horngren, Harrison, and Robinson. *Principles of Financial & Management Accounting*. 1994, pp. 810-811; Barfield, Raiborn, and Kinney. *Cost Accounting Traditions and Innovations*. 2nd Edition, 1994, pp. 37-40.

⁴⁵³ See Appendix 8 – McGuire’s Total Affected Costs, Cuyahoga and Summit Counties.

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Example: Damages to Cuyahoga County Sheriff's Department			2017
McGuire	(1) Total Costs Incurred by Cuyahoga Sheriff		<i>(\$ in millions)</i>
	Total Compensation Costs	[a]	\$32.9
	Affected Non-Compensation Costs	[b]	\$0.8
	(2) Share of Costs in Relevant Divisions that Address Harms		
	Overhead Adjustment	[c]	93.2%
	Crime-Focused Percentage	[d]	68.7%
	Offset to Affected Costs	[e]	\$0.0
	(3) Share of Harms Attributable to Defendants' Misconduct <i>(taken from Cutler Report)</i>		
Cutler		[f]	5.2%
	Damages to Cuyahoga Sheriff	$([a]*[c]*[d]+[b]-[e])*[f]$	\$1.1
	(4) Share of Harm Attributable to Opioids ("Opioid-Related %")	[g]	11.0%
	(5/6) Share of Harm (based on Regression)	[h]	47.7%
	(3) Share of Harms Attributable to Defendants' Misconduct	$[f]=[g]*[h]$	5.2%

At least three of the elements of McGuire's calculation in steps (1) and (2) of reaching "affected costs" present significant problems:

- [b] Affected Non-Compensation Costs: identifies certain non-compensation expense accounts that he believes reflect "costs that were incurred in the provision of services that were affected by the opioid crisis."⁴⁵⁴
- [c] Overhead Adjustment Factor: reduces identified compensation costs by "excluding estimates of costs related to staff in overhead or support activities."⁴⁵⁵ McGuire performs this adjustment by reviewing job titles within employee headcount data or payroll expenditures and picking out employees that appear to relate to "overhead or support activities...that were unlikely to have been affected by the crisis."⁴⁵⁶

⁴⁵⁴ See McGuire Report, para. 61.

⁴⁵⁵ See McGuire Report, para. 60.

⁴⁵⁶ See McGuire Report, para. 60.

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- [e] Offset to Affected Costs: deducts any “revenue received from other governments, or any other external sources, that was provided for the sole purpose of funding opioid-specific activities...”⁴⁵⁷

a) Affected Non-Compensation Costs and Overhead Adjustment Factor

It is unclear how McGuire arrived at final decisions on how to classify personnel as having been “affected” by opioid-related issues for purposes of determining the overhead adjustment factor. The same is true for McGuire’s identification of affected non-compensation costs. McGuire’s description of his own process makes clear that most of his determinations were based solely on his own ‘judgment’ after reading things like job titles and salaries in the counties’ annual budgets.⁴⁵⁸ McGuire also ‘think[s]’ that some of his determinations were made after discussions with consultants at Compass Lexecon.⁴⁵⁹ McGuire suggests that local officials provided ‘general confirmation’ of determinations, but also makes clear that most of his determinations were not confirmed with county officials.⁴⁶⁰

And while McGuire states in his report that “identification [of costs that would be expected to vary] was also informed by discussion with the personnel in the respective divisions,”⁴⁶¹ it does not appear that McGuire met with any representatives from Cuyahoga County or Summit County.⁴⁶² Plaintiffs produced notes prepared by McGuire’s staff from interviews with City of Cleveland personnel, but there are none from Summit or Cuyahoga.⁴⁶³ Additionally, in his deposition, McGuire could not recall a single conversation with county personnel and had no recollection of who his staff interviewed.⁴⁶⁴ McGuire should have, at a

⁴⁵⁷ See McGuire Report, para. 35.

⁴⁵⁸ See deposition of Thomas McGuire dated April 23, 2019, pp. 116:4-117:19 and 118:22-119:18.

⁴⁵⁹ See deposition of Thomas McGuire dated April 23, 2019, pp. 117:20-118:2.

⁴⁶⁰ See deposition of Thomas McGuire dated April 23, 2019, pp. 120:3-24 and 121:20-122:13.

⁴⁶¹ See McGuire Report, para. 59.

⁴⁶² McGuire references his discussions with county personnel in para. 9, 51, and 59 of his report; however, only lists interviews with Cleveland personnel in Appendix IV.B (Materials Considered).

⁴⁶³ See McGuire 0001-0007.

⁴⁶⁴ See deposition of Thomas McGuire dated April 23, 2019, pp. 73:2-8; 74:16-22; 75:15-76:17; 77:8-17; 81:14-82:9; 90:6-17.

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minimum, asked the county personnel if his underlying assumptions were reasonable regarding overhead adjustments and non-compensation costs.

Although I did not have the same access to county personnel, I was still able to identify discrepancies between the non-compensation costs McGuire identified and costs identified by county personnel. Mr. Kearns performed a cost analysis in 2017 that identified “cost categories that [Children Services] felt were child-specific and were related – or could be impacted by the opioid epidemic in the county.”⁴⁶⁵ Comparison of this cost analysis⁴⁶⁶ to McGuire’s identified accounts revealed that McGuire included numerous additional non-compensation accounts.⁴⁶⁷ There is no evidence that McGuire considered the estimate developed by county personnel and McGuire provided no justification for the inclusion of these additional non-compensation accounts. It is unlikely that McGuire would have more insight than an actual county employee regarding whether these expenses were impacted by opioids.

In my opinion, McGuire’s inability to support his decisions surrounding the development of his overhead adjustment factors and identified non-compensation costs render his damages (that are partially based off these amounts) speculative.

b) Offset to Affected Costs

McGuire’s identification of “affected costs” is also unreliable because he incorrectly accounts for offsetting revenues from other government or external sources. He acknowledges that both Cuyahoga County and Summit County received revenues in the form of “intergovernmental transfers” and that some of the funds received from other governments (state and/or federal), or other external sources, do not necessarily represent a cost to the counties. McGuire explicitly states that he excludes these funds from his “affected costs” if received “for the sole purpose of funding opioid-specific activities.”⁴⁶⁸ The important distinction in McGuire’s methodology relates to the stipulation under which the funds were provided – if the funds were

⁴⁶⁵ See deposition of Darin Kearns dated December 5, 2018, pp.270:23-271:6.

⁴⁶⁶ See SUMMIT_000344091.

⁴⁶⁷ Also note that Kearns did not include any compensation costs in his analysis, whereas McGuire includes all compensation costs.

⁴⁶⁸ See McGuire Report, para. 35.

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provided specifically related to the opioid epidemic, they offset losses to the county because the funds were not diverted from any other use. However, if the funds would have been provided absent the opioid epidemic, these are not netted out because “any funds that are devoted to opioid-related activities decreases funds available for other activities.”⁴⁶⁹

However, the relevant question is whether the grant funds apply to the affected service, whether or not the service is given an opioid-related designation or name. But even if McGuire’s description of how to account for intergovernmental transfers were correct, he has incorrectly ignored numerous sources of revenue that are provided to “affected divisions” on a reimbursement basis. It follows that if a division is experiencing an increase in opioid-related activities, which in turn leads to an increase in reimbursements from an external source, these amounts should be excluded from his damage calculations. McGuire mentions something to this effect in footnote 35 of his report:⁴⁷⁰

There may be outside funds (e.g. state or federal) that are provided to a county division that, while not explicitly mandated for use against the opioid-epidemic, are *indirectly tied* to the amount of activity provided by a division which may have increased as a result of the opioid epidemic. For the purpose of my current analysis, I do not net out these transfers. [emphasis added]

Some funds included in McGuire’s “affected costs” are provided to the affected divisions and are directly tied to the amount of activity allegedly affected by opioid abuse, which are described in further detail below.

Title IV-E Funds

For example, a significant portion of Cuyahoga County Children and Family Services’ and Summit County Children Services’ expenditures are funded by the federal government via the Social Security Act, with a majority of these funds coming from Title IV-E provisions.

⁴⁶⁹ See McGuire Report, para. 36.

⁴⁷⁰ See McGuire Report, footnote 35.

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These Title IV funds reimburse the counties for expenditures associated with child placements and are described in the Cuyahoga County 2014/2015 Budget Plan as follows:⁴⁷¹

Title IV-E - The County is reimbursed through Title IV-E of the Social Security Act for expenses associated with the placement of children who are at risk or victims of abuse or neglect substitute placement. The IV-E entitlement comes to the County through two allocations: Administration and Maintenance. The Administration allocation is the larger of the two and provides reimbursement for administrative expenses (including salary and benefits) and Maintenance provides reimbursement for the actual cost of substitute care (e.g. per diem paid to foster care homes and residential care providers).

The 2016 Summit County Children Services budget has similar language:⁴⁷²

Title IV-E Administration dollars are a reimbursement of social service cost pool based on the state formulas and the Random Moment Studies. The 2016 Budget is based on recent trending and formulated based upon projected expenditures and random moment coding. As costs decrease, IV-E revenue is proportionatly (*sic*) lower.

Title IV-E Placement revenues are reimbursements for IV-E eligible children in the care of SCCS. Reimbursements are at prescribed rates based on the level of care subject to cap limits....

Title IV funds are directly connected to the number of children in custody/placement and fluctuate accordingly. This relationship was highlighted in the Cuyahoga 2016/2017 Budget plan referring to the decrease in Title-IV money received:⁴⁷³

Title-IV revenue, which reimburses the County for out-of-home board and care expenses, has been declining due to reductions in the number of children in placement.

⁴⁷¹ See Cuyahoga 2014-2015 Budget Plan, p. IV-4.

⁴⁷² See Children Services 2016 Budget, p. 61.

⁴⁷³ See Cuyahoga 2016-2017 Budget Plan, p. IV-4.

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Following McGuire's own logic, any funds received on a reimbursement basis (although not specifically identified for combating opioid-related issues) could not have been diverted from any other use. Thus, these Title-IV-E funds should have been excluded from McGuire's "affected costs" (e.g., salaries, foster care homes, child board and care costs).

I quantified Title IV-E funds received by Cuyahoga and Summit over McGuire's presumed damage period. The cumulative revenues are shown below:

- Cuyahoga County Title IV-E (2006-2017): \$478,542,865 ⁴⁷⁴
- Summit County Title IV-E (2006-2018): \$157,077,917 ⁴⁷⁵

As evidenced, these funds comprise a significant source of revenue for Cuyahoga County Children and Family Services and Summit County Children Services. By not subtracting these reimbursements from the federal government from his "affected costs," McGuire is overstating the amount of "affected costs." Excluding these amounts alone reduces his damages (under Approach 1- Damages from Defendants' Misconduct - Direct Shipments Regression Method) for Cuyahoga County Children and Family Services and Summit County Children Services by approximately \$16.6 million (33%) and \$12 million (32%) in Cuyahoga and Summit Counties, respectively.⁴⁷⁶ This error rate is indicative of a speculative and unreliable methodology.

My review of the relevant documents has shown various other affected divisions that also receive external funds on a reimbursement basis, which McGuire incorrectly handled. Different forms of reimbursement (and which county divisions receive these funds) are described below:

Reimbursements from the State of Ohio Public Defender

Counties are required to provide legal counsel to indigent individuals. Cuyahoga and Summit Counties accomplish this through two avenues: (1) assignment of an attorney from the Public Defender's Office, or (2) the assignment of a private attorney who is reimbursed by the

⁴⁷⁴ See Appendix 9 – Offset of Title IV-E Funds, Cuyahoga County Children & Family Services and CUYAH_001714459.

⁴⁷⁵ See Appendix 10 – Offset of Title IV-E Funds, Summit County Children Services and SUMMIT_002054603.

⁴⁷⁶ See Appendices 9 – Offset of Title IV-E Funds, Cuyahoga County Children & Family Services, and 10 – Offset of Title IV-E Funds, Summit County Children Services.

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county. Costs incurred by Cuyahoga and Summit Counties related to payment for private attorneys are captured under expense accounts titled “assigned counsel”⁴⁷⁷ or “attorney fees,”⁴⁷⁸ respectively. These indigent defense costs are partially reimbursed by the State of Ohio Public Defender.⁴⁷⁹ Effective reimbursement rates have varied over the years and are reported in the counties’ budgets⁴⁸⁰ and on the State of Ohio Public Defender website.⁴⁸¹ McGuire includes the Public Defender’s Office, “assigned counsel,” and “attorney fees” expense accounts in his affected non-compensation costs for the following divisions and should therefore include an offset for reimbursed funds:

- Cuyahoga County: Office of the Public Defender, Court of Common Pleas, and Juvenile Court
- Summit County: Court of Common Pleas, Juvenile Court⁴⁸²

McGuire was not aware that these costs are partially reimbursed to the Counties and when made aware of this fact at his deposition he stated, “...I think your -- if what you’re saying is has some basis, then it’s something I would want to look at.”⁴⁸³

Reimbursements from Title IV funds for Juvenile Cases

Similar to reimbursements for Cuyahoga County Children and Family Services and Summit County Children Services, certain judicial divisions that handle juvenile cases are also subject to reimbursement from Title IV-E funds.⁴⁸⁴ In Cuyahoga County, the Juvenile Court

⁴⁷⁷ See Cuyahoga 2016/2017 Budget Plan, p. 146.

⁴⁷⁸ See Summit County 2018 Operating Budget, pp. 380-381 and p. 405.

⁴⁷⁹ See <https://opd.ohio.gov/Reimbursement/Reimbursement#105161-application-fee--recoupment>.

⁴⁸⁰ See Cuyahoga County Budget Plans, “Office of the Public Defender” section, and Summit County Operating Budgets, “General Fund – Attorney/Jury Fees” section.

⁴⁸¹ See State of Ohio Public Defender - Reimbursement History for Purposes of Calculating Recoupment (<https://opd.ohio.gov/Portals/0/PDF/Reimbursement/Reimbursement-Percent-History.pdf?ver=2019-02-21-093626-180>).

⁴⁸² See Reimbursement for the Juvenile Court (while not explicitly stated in the Juvenile Court budget discussion) was confirmed through review of General Fund revenue accounts: “Defense of Indigent” and “Juvenile Atty Fee Reimbursement” in the Summit County Banner accounting system (SUMMIT_002054603).

⁴⁸³ See deposition of Thomas McGuire dated April 30, 2019, pp. 827:10-828:12.

⁴⁸⁴ See <http://codes.ohio.gov/orc/2151.152v1>.

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receives Title IV-E revenues⁴⁸⁵ that fund salaries and other miscellaneous expenses.⁴⁸⁶ The Cuyahoga Office of the Prosecutor receives reimbursements from Title IV-D⁴⁸⁷ and Title IV-E funds for the interdepartmental divisions of Child Support and Children and Family, respectively.^{488, 489} In Summit, the Prosecutor's office receives Title IV-E funding for prosecutors assigned to abuse/dependency/neglect cases.⁴⁹⁰ McGuire failed to consider these reimbursements in his damage calculation.

Reimbursements by City Municipal Courts

Municipal courts within the cities also provide sources of revenue to the counties. McGuire offsets the City of Akron's "indigent defense contract" against Summit's Affected Costs.⁴⁹¹ However, he fails to offset reimbursements received by Cuyahoga from Cleveland for providing legal counsel to indigent clients in the Cleveland Municipal Court.⁴⁹²

Reimbursements by the State of Ohio for Judges' Salaries

The Cuyahoga County Court of Common Pleas was reimbursed from the State of Ohio for the compensation of its 34 elected judges.⁴⁹³ McGuire failed to consider this since he did not offset this reimbursement from the "affected compensation costs" which include judges' salaries.⁴⁹⁴

⁴⁸⁵ See CUYAH_001714459.

⁴⁸⁶ See CUYAH_014627783.

⁴⁸⁷ See <http://codes.ohio.gov/orc/3125>.

⁴⁸⁸ See Cuyahoga 2018/2019 Budget Plan, "Office of the Prosecutor" section.

⁴⁸⁹ See Children and Family Division is also supported by State Child Welfare Allocations and the County's Health and Human Services Levy (Cuyahoga 2018/2019 Budget Plan, "Office of the Prosecutor" section).

⁴⁹⁰ See deposition of Brad Gessner dated December 3, 2018, pp. 286:23-287:12.

⁴⁹¹ See McGuire Appendix IV.D-4.1, Court of Common Pleas.

⁴⁹² See Cuyahoga County 2018/2019 Budget Plan, "Office of the Public Defender" section.

⁴⁹³ See Cuyahoga County Court of Common Pleas 2017 Annual Report, "Fiscal Report" section. "Salary and Fringe Benefits is the largest expense category representing compensation to approximately 513 full and part-time staff, inclusive of the 34 elected judges who are paid by the State of Ohio."

⁴⁹⁴ This reimbursement has not been confirmed for Summit County. To the extent this is a statewide policy, an offset should also be applied to Summit County.

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In general, it does not appear that McGuire made any real attempt to review accounting documents, budgets, or even testimony that clearly identify revenues derived from reimbursements, which by his own definition, are not at issue in this case and should be removed from damages. The demonstrated lack of knowledge regarding funding sources and resulting high error rates are yet another reason McGuire's opinions on damages should be rejected.

C. Inappropriate, Deficient, and Insufficient Data

McGuire's damages are entirely dependent on the work of Cutler, who bases his work on inappropriate, deficient, and insufficient data, fails to properly analyze and vet his underlying data sources, and ignores a significant amount of county specific data produced by Plaintiffs. McGuire admits that selecting the right data is a crucial step, and the failure to do so represents a critical deficiency in Cutler's, and therefore McGuire's opinions.⁴⁹⁵

As previously described, McGuire calculates damages for Bellwether governments by analyzing the "increased demand for services resulting from defendants' misconduct" using the following formula:^{496,497}

$$\begin{aligned} \text{Damages} = & \quad (1) \text{ Total Costs Incurred in Bellwether Divisions Affected by Opioid Crisis} \\ & \quad \times (2) \text{ Share of Total Costs in Relevant Divisions That Address Harms} \\ & \quad \times (3) \text{ Share of Harm Attributable to Defendants' Misconduct} \end{aligned}$$

McGuire relies on Cutler to provide the last element of his damage calculation, (3) share of harm attributable to defendants' misconduct. This part of the equation is described within Cutler's report as the following:⁴⁹⁸

$$\begin{aligned} & (3) \text{ Share of Harms Attributable to Defendants' Misconduct} \\ & = (4) \text{ Share of Harms Attributable to Opioids ("Opioid-Related \%")} \\ & \times (5) \text{ Share of Opioid Harms Attributable to Opioid Shipments} \end{aligned}$$

⁴⁹⁵ See Deposition of Thomas McGuire dated April 23, 2019, p. 143:7-23.

⁴⁹⁶ See McGuire Report, para. 16 and 72.

⁴⁹⁷ Note that McGuire and Cutler do not assign numbers to calculation steps within their individual reports (i.e., numbers 1-6 above). I have included numbers here for illustrative purposes.

⁴⁹⁸ See McGuire Report, footnote 15 and Cutler Report, para. 23.